659339

FIGURE 1

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FIGURE 2

HTLV-III

FIGURE 2

HTLV-III

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FIGURE 2

HTLV-III

FIGURE 3 (A)

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       10         20        30         40         50         60          70
AAAACTCAG TTCCAGCCLA TTTA   ACC TTTCCAGGAT TCACGATTA  ACTAATCAT ACTACCGCAC

       80         90        100        110        120        130        140
CCCAATATC CATTACCCAT CCTTCAACCA CACCCAGATA AAAGTCAATC ACACTCACTC AATCAGAATCA

      150        160        170        180        190        200        210
ACACCAGTT AATACCAAAG CCCAAACGTCT AACTCCCCATC CCTACCLCCA CACCAAGCAAG TTCCACGACG

      220        230        240        250        260        270        280
CANCAGCCC CATCAAATTAC TCACTCCTCC AATCAGCAAA ATACTATTTT TACATCCAAT ACATCACCCC

                   300        310        320        330        340        350
AACATCACC ATCACAAATA TCACACTAAT TCCACACCCAT TCCCTCCTCA TTTTAACCTC CCACCCCCTAC

      360        370        380        390        400        410        420
ACCCAAACCA AATACTACCC ACCTCTCCATC AATCTCCACCT AAAAACCACAA CCCATCCATC CACAACACCA

      430        440        450        460        470        480        490
TCTACCCCCA CCAACTATCCC AACTAGATTC TACACATTTA CAACCAACAAC TTATCCTCCT ACCACTTCAT

      500        510        520        530        540        550        560
TACCCACTC CATATATACA ACCACAACTT ATTCCACCAC AAACAGGCCA CCAAACACCCA TATTTTCTTT

      570        580        590        600        610        620        630
ACACTTACC ACCAACATCC CCACTAAAAA CAATACATAC ACACAATCCC ACCAATTTCA CCACTCCTAC

      640        650        660        670        680        690        700
CCTAAACCCC CCCTCTTCCT CCCCCCCCAAT CAACCACCAA TTTCCAATTC CCTACAATCC CCAAACTCAA

      710        720        730        740        750        760        770
ACACTACTAC AATCTATCAA TAAACCAATTA AACAAAATTA TACCACACCCT AACACATCAC CCTCCACATC

      780        790        800        810        820        830        840
CTAACACACC ACTACAAATC CCACTATTCA TCCACAATTT TAAAACAAAA CCCCCCCATTC CCCCCTACAC

      850        860        870        880        890        900        910
CCCACCCCAA ACAATACTAC ACATAATACC AACACACATA CAAACTACAC AATTACAAAA ACACCCTATA

      920        930        940        950        960        970        980
AACATTCAAA ATTTTCCCCT TTATTACACC CACACCCACAA ATCCACTTTC CAAACCACCA CCAA CCCCC
```

FIGURE 3 (A)

```
     10         20        30        40        50        60        70
AGAACTCAG TTCCAGCCLA TTTA   GCCT TTTCCAGCAT TCACCATTA  ACTAATCAT ACTACCCCAC

     80        90       100       110       120       130       140
CACCATATC AATTACCGAT CATTCAAGTA CAACCACATA AAACTCCATC ACACTTACTC AATCACATTA

    150       160       170       180       190       200       210
ACACTTGTT AATACCAAAG GCAAACCTCT AICTCCCATC CCTACCACCA CACAAACCAA TTCTACCACAC

    220       230       240       250       260       270       280
CAACACATC CATAAATTAC TCACTCCTCC AATCACCAAA ATACTATTTT TACATCCAAT ACATAACCCC

    290       300       310       320       330       340       350
AAGATCATC ATCACAAATA TCACACTAAT TCCACACCAT TCCCTACTCA TTTAACCTC CCACTTCTAC

    360       370       380       390       400       410       420
ACCCACCCA AATACTACTC ACCTCTCATA AATCTCACCT AAAACCACAC CCCATCCATC CACAACTACA

    430       440       450       460       470       480       490
TCTACTCCA CCTCATATCCC AACTACATTC TACACATTTA CAACCACAAC TTATCCTCCT ACCACTTCAT

    500       510       520       530       540       550       560
TACCCACTC CATATATACA ACCACAACTT ATTCCACCAC AAACACCCCA CCAAACACCA TATTTTCTTT

    570       580       590       600       610       620       630
ACAATTACC ACCACACATCC CCACTAAAAA CAATACATAC ACACAATCCC ACCAATTTCA CCACTCCTAC

    640       650       660       670       680       690       700
CTTACACCC CCCTCTTCCT CCCCCCCAAT CAACCACCAA TTTCCAATTC CCTACAATCC CCAAACTCAA

    710       720       730       740       750       760       770
ACACTACTAC AATCTATCAA TAAACAATTA AAGAAAATTA TACCACACCT AACACATCAC CCTCAACATC

    780       790       800       810       820       830       840
CTAACACACC ACTACAAATC CCACTATTCA TCCACAATTT TAAAACAAAA CCCCCCATTC CCCCCTACAC

    850       860       870       880       890       900       910
TCCACCCCAA ACAATACTAC ACATAATACC AACACACATA CAAACTAAAC AATTACAAAA ACAACTTATC

    920       930       940       950       960       970
AACATTCAAA ATTTTCCCCT TTATTACACC CACACCACAA ATCCACTTTC CAAACCACCA CCAA CTTCC
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FIGURE 3 (A)

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        10          20          30          40          50          60          70
AAAACTCAG  TACGAACCLA  TTTA  ....  TTTCLAGGAT  TCAGGATTA.  ACTAATCAT  ACTAAGCGCAG

        80          90         100         110         120         130         140
CACAATATG  AATTAGCGAT  CATTCAAGTA  CAACCAGATA  AAAGTGAATC  AGAGTAGTG  AATCAGAATCA

       150         160         170         180         190         200         210
AGACAGTT  AATACAAAG  GAAAACCTCT  ATCTGGTATG  GGTACCACCA  CACAAAGCAA  TTGTAGGAAA

       220         230         240         250         260         270         280
GAACAGATC  GATAAAATTAC  TCAGTGCTCG  AATCAGGAAA  ATGCTATTTT  TACATGCAAT  AGATAACGCC

       290         300         310         320         330         340         350
AAGATAAATC  ATAGACAAATA  TC-CAGTAAT  TGGAGAGCAT  TCGCTAGTCA  TTTTAAGCTG  GCAGTTGTAC

       360         370         380         390         400         410         420
ACCAAGAGTA  AATAGTAGGC  AGCTGTCATA  AATGTCACCT  AAAACGAGAA  GCCATGCATG  GACAAGTAGA

       430         440         450         460         470         480         490
TGTAGCCCA  GGAATATGGC  AAGTAGATTG  TACACATTTA  GAAGGAAAAG  TTATCCTGGT  AGCAGTTCAT

       500         510         520         530         540         550         560
TACCCACTG  GATATATAGA  AGCAGAAGTT  ATTCCAGCAG  AAACAGGGCA  GGAAACAGCA  TATTTTCTTT

       570         580         590         600         610         620         630
AAAATTAGC  AGGAAGATGG  CCAGTAAAAA  CAATACATAC  AGACAATGCC  AGCAATTTCA  CCAGTGGTAC

       640         650         660         670         680         690         700
AGTTAAGGCC  GCCTGTTGGT  GGGCGGGAAT  CAAGCAGGAA  TTTGGAATTC  CCTACAATCC  CCAAAGTCAA

       710         720         730         740         750         760         770
GGAGTAGTAG  AATCTATGAA  TAAAGAATTA  AAGAAAATTA  TAGGACAGGT  AAGAGATCAG  GCTGAACATC

       780         790         800         810         820         830         840
TTAAGACAGC  AGTACAAATG  GCAGTATTCA  TCCACAATTT  TAAAAGAAAA  GGGGGGATTG  GGGGGTACAG

       850         860         870         880         890         900         910
TGCAGGGGAA  AGAATAGTAG  ACATAATAGC  AACAGACATA  CAAACTAAAG  AATTACAAAA  ACAAATTACA

       920         930         940         950         960         970         980
AAAATTCAAA  ATTTTCGGGT  TTATTACAGG  GACAGCAGAA  ATCCACTTTG  GAAAGGACCA  GCAA  TTTGG
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         990         1000        1010        1020        1030        1040   ⓑ
TCTGGAAGGC TGGAGGGCCA TTTGTAATAC AAGGTGGTAG TGGCGTGGGG GTAGTGCGGA  CAGGA...

        1060        1070        1080        1090        1100        1110
AAGGATCATT ACGGGTTATG GAGAACAGAT GGCAGGTGAT CATTGTGTGG CAGGTAGGGA  GGATTGG..

        1130        1140        1150        1160        1170        1180        11'
TGGAGCATGG AGAAGTTTAG TCAAGCACGA TATGTATGTT TCAGGGAAAG CTAGGGGATG GTTTTATA...

        1200        1210        1220        1230        1240        1250
GATCACTATG GAAGCCCTCA TCCAAGAGTA AGTTCAGAAG TAGACATGGG ACTAGGGGAT GGTAGATT...

        1270        1280        1290        1300        1310        1320
TAGTAGGAAG ATGTTGGGGT CTGGATACAG GAGGAAGAGA CTGGCATTTG GGTGAGGGAG TGTGGATA...

        1340        1350        1360        1370        1380        1390        14
ATGGAGGAAA AAGAGATATA GGGAGCAAGT AGAGGCTGAA CTAGGAGGGG AAGTAGTTGA GGTGTATT.

        1410        1420        1430        1440        1450        1460        14
TTTGACTGTT TTTGAGAGTG TGGTATAAGA AAGGGCTTAT TAGGGAGCAT AGTTAGGGGT AGGTGGGG.

        1480        1490        1500        1510        1520        1530        15
ATGAAGGAGG AGATAAGAAG GTAGGATGTG TAGAATAGTT GGGAGTAGGA GGATTAATAA GAGGGAAA.

        1550        1560        1570        1580        1590        1600        16
GGTAAAGGGA GGTTTGGGTA GTGTTAGTGA AGTGAGAGAG GATAGATGGA AGAAGGGGGA GGAAGGGG.

        1620        1630        1640        1650        1660        1670        16
GGGGGAGAGA GGGAGGGAGA GAATGGATGG AGAGTAGAGG TTTTGGGGGA GGTTAAGAAT GGAGGGTG.

        1690        1700        1710        1720        1730        1740        17'
GGGATTTTGG TAGGATTTGG GTGGATGGGT TAGGGGAGGA TATGTATGAA AGTTATGGGG GTAGTTGG.

        1760        1770        1780        1790        1800        1810        18
AGGAGTGGAA GGGATAATAG GAATTGTGGA AGAAGTGGTG TTTATGGATT TTGAGAATTG GGTGTGGA.

        1830        1840        1850        1860        1870        1880        18'
TAGGAGAATA GGGGGTTAGTG GAGAGAGGGG AGGAGGAAAT GGAGGGAGGA GATGGTAGAG TAGAGGGG.

        1900        1910        1920        1930        1940        1950        19
AAGGATGGAG GAAGTGAGGG TAAAAGTGGT TGTAGGAATT GGTATTGTAA AAAGTGTTGG TTTGATTG

        1970        1980        1990        2000        2010        2020        20
AAGTTTGTTT GATAAGAAAA GGGTTAGGGA TGTGGTATGG GAGGAAGAAG GGGAGAGAGG GAGGAAGA

        2040        2050        2060        2070        2080        2090        21
GGGTGAAGGG AGTGAGAGTG ATGAAGTTTG TGTATGAAAG GAGTAAGTAG TAGATGTAAT GGAAGGTA

        2110        2120        2130        2140        2150        2160        21
GAAGTAGGAA TAGTAGGATT AGTAGTAGGA ATAATAATAG GAATAGTTGT GTGGTGGATA TTGAGGGAT

        2180        2190        2200        2210        2220        2230        22
AGGATAGGAA AATATTAAGA GGAAGGAGGA TAGAGAGGTT AATTGATAGA GTAGTAGGAG  GGAGGAA

        2250        2260        2270        2280        2290        23             23
GAGTGGGGAT GAGAGTGAAG GAGAGATATG AGGAGTTGTG GAGATGGGGG TGGAGGAT       GGTG

        2320        2330        2340        2350        2360        23             23
GGTTGGGATG TTGATTATGG GTAGTGGTAG AGGAGAATTG TGGGTGAGAG TGTATTAT        GGTG
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       990        1000        1010        1020        1030        1040   Ⓑ
TCTGGAAGGC TGGAGGGCCA  TTGTAATAC AAGGTGGTAG TGACCTAGAA GTAGTGGGAA  CAAGAGAA ...

       1060       1070        1080        1090        1100        1110        11
AAGGATCATT ACGGGTTATC GAGAACAGAT GGGAGGTGAT GATTGTGTGG CAAGTAGGGA  GGATTAGG ...

       1130       1140        1150        1160        1170        1180        11
TGGAAGATGG AGAAGTTTAG TGGAAGAGGA TATGTATGTT TGAGGGAAAG GTAGGGGATG GTTTTATA ...

       1200       1210        1220        1230        1240        1250        1
CATCAGTATG GAAGGGGTGA TGGAAGAATA AGTTGAGAAG TAGAGATGGG AGTAGGGGAT GGTAGATT ...

       1270       1280        1290        1300        1310        1320        1
TAGTAAGAAG ATATTGGGGT GTGGATAGAG GAGAAAGAGA GTGGGATTTG AGTGAGGGAG TGTGGATA ...

     1340       1350        1360        1370        1380        1390        14
ATGGAGGAAA AAGAGATATA GGAGAGGAGT AGAGGGTGAA GTAGGAGGGG AAGTAGTTGA TGTGTATT ...

       1410       1420        1430        1440        1450        1460        14
TTTGACTGTT TTTGAGGACTG TGGTATAAGA AAGGGCTTAT TAGGAGACAT AGTTAGGGGT AGGTGTGG ...

       1480       1490        1500        1510        1520        1530        15
ATGGAGGAGG AGATAGGAAG GTAGGATGTG TAGAATAGTT GGGAGTAGGA GGATTAGTAA GAGGGAAA ...

       1550       1560        1570        1580        1590        1600        16
GATAGAGGGA GGTTTGGGTA GTGTTAGTGA AGTGAGAGAG GATAGATGGA AGAAGGGGGA GAAAGAGG ...

       1620       1630        1640        1650        1660        1670        16
GGAGGAGAGA GGGAGGGAGA GAATGGATGG AGAGTAGAGG TTTTAGGGGA GGTTAAGAAT GAAGGGTGT ...

       1690       1700        1710        1720        1730        1740        17
GAGATTTTGG TAGGATTTGG GTGGAGGGGT TAGGGGAAGA TATGTATGAA AGTTATGGGG ATAGTTGG ...

       1760       1770        1780        1790        1800        1810        18
AGGAGTGGAA GGGATAATAG GAATTGTGGA AGAAGTGGTG TTTATGGATT TTGAGAATTG GGTGTGGA ...

       1830       1840        1850        1860        1870        1880        18
TAGGAGAGTA GGGGTTAGTG GAGAGGAGGAG AGGAAGAAAT GGAGGGAGGA GATGGTAGAG TAGAGGGG ...

       1900       1910        1920        1930        1940        1950        19
AAGGATGGAG GAAGTGAGGG TAAAAGTGGT TGTAGGAATT GGTATTGTAA AAAGTGTTGG TTTGATTG ...

       1970       1980        1990        2000        2010        2020        20
AAGTTTGTTT GATAAGAAAA GGGTTAGGGA TGTGGTATGG GAGGAAGGAG GGGAGAGAGG GAGGAAGA ...

       2040       2050        2060        2070        2080        2090        21
GGGTGAAGGG AGTGAGAGTG ATGAAGTTTG TGTATGAAAG GAGTAAGTAG TAGATGTAAT GGGAGGTA ...

       2110       2120        2130        2140        2150        2160        21
GAAATAGGAA TAGTAGGATT AGTGGTAGGA ATAATAATAG GGATAGTTGT GTGGTGGATG  TTATTGAT ...

       2180       2190        2200        2210        2220        2230        22
AGGATAGGAA GATATTAAGA GAAAGGAGGA TAGAGAGGTT AATTGATAGA GTAGTAGGAG    GAGAA ...

       2250       2260        2270        2280        2290                    
GAGTGGGAAT GAGAGTGAAG GAGAGATATG AGGAGTTGTG GAGATGGGGG TGGAGATG          ATG

       2320       2430        2440        2350        2360                    
GGTTGGAATG TTGATGATGG GTAGTGGTAG AGAGAAATTG TGGGTGAGAG TGTATTAT          GTG
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        2390       2400       2410       2420       2430       2440       2450
TCGGAGCAAG CAACCACCAC TCTATTTTGT GCATCAGATC CTAAAGCATA TGATACAAGA GGTACATAAT

        2460       2470       2480       2490       2500       2510       2520
GTTTGGGCCA CACATGCCTG TGTACCCACA GACCCCAACC CACAAGAAGT AGTATTCGTA ACTGTGACAG

        2530       2540       2550       2560       2570       2580       2590
AAGATTTTAA CATGTGGAAA AATGACATGG TAGAACAGGT GCATGAGGAT ATAATCATTT TATGGGATCA

        2600       2610       2620       2630       2640       2650       2660
AAGCCTAAAG CCATGTGTAA AATTAACCCC ACTCTGTGTT ACTTTAAACT GCACTGATTT GAAGAATGAT

        2670       2680       2690       2700       2710       2720       2730
ACTAATACCA ATAGTACTAG CGGGAGAATG ATAATGGAGA GAGGAGAGAT GAAAAACTGC TCTTTCAATA

        2740       2750       2760       2770       2780       2790       2800
TCAGCACAAC CATAGGAGGT AAGGTGCAGA AAGAATATGC ATTTTTTTAT AAACTTGATA TAGTACCAAT

        2810       2820       2830       2840       2850       2860       2870
AGATAATGAT ACTACCAGCT ATACGTTGAC AAGTTGTAAC ACCTCAGTCA TTACACAGGC CTGTCCAAAG

        2880       2890       2900       2910       2920       2930       2940
GTATCCTTTG AGCCAATTCC CATACATTAT TGTGCCCCGG CTGGTTTTGC GATTCTAAAA TGTAATAATA

        2950       2960       2970       2980       2990       3000       3010
AGACGTTCAA TGGAACAGGA CCATGTACAA ATGTCAGCAC AGTACAATGT ACACATGGAA TTAGGCCAGT

        3020       3030       3040       3050       3060       3070       3080
AGTATCAACT CAACTGCTGT TAAATGGCAG TCTAGCAGAA GAAGAGGTAG TAATTAGATC TGTCAATTTC

        3090       3100       3110
ACGGACAATG CTAAAACCAT AATAGTACAC CT
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       2390      2400       2410       2420       2430      2440       2450
TCGAAGCAAG CAACCACCAC TCTATTTTGT GCATCAGATC CTAAAGCATA TGATACAAGA GGTACATAAT

      2460      2470       2480       2490       2500      2510       2520
GTTTGGCCA CACATGCCTG TGTACCCACA GACCCCAACC CACAGAAGT AGTATTCGTA AGTGTGACAG

      2530      2540       2550       2560       2570      2580       2590
AAGATTTTAA CATGTGGAAA AATGACATGG TAGAACAGGT GCATCAGGAT ATAATCATTT TATGGGATCA

      2600      2610       2620       2630       2640      2650       2660
AAGCCTAAAG CCTGTGTAA AATTAACCCC ACTCTGTGTT ACTTTAAACT GCACTGCTTT CAAGAATGAT

      2670      2680       2690       2700       2710      2720       2730
AGTAATAGCA ATAGTAGTAG CGGGAGAATG ATAATGGAGA CAGGAGAGAT GAAAAACTGC TCTTTCAGTA

      2740      2750       2760       2770       2780      2790       2800
TCAGCACAAC CATAGAGAGT AAGGTGCAGA AAGAATATGC ATTTTTTTAT AAACTTGATA TGATACCAAT

      2810      2820       2830       2840       2850      2860       2870
AGATAATGAT ACTACCAGCT ATAGGTTGAC AAGTTGTAAC ACCTCAGTCA TTACACAGGC CTGTCCAAAG

      2880      2890       2900       2910       2920      2930       2940
GTATCCTTTG AGCCAATTCC CATACATTAT TGTGCCCCGG CTGGTTTTGC GATTCTAAAA TGTAGTAATA

      2950      2960       2970       2980       2990      3000       3010
AGACGTTCAA TGGAACAGGA CCATGTACAA ATGTCAGCAC AGTACAATGT ACACATGGAA TTAGGCCAGT

      3020      3030       3040       3050       3060      3070       3080
AGTATCAACT CAACTGCTGT TAAATGGCAG TCTAGCAGAA GAAGAGGTAG TAATTAGATC TGTGAATTTC

      3090      3100       3110
ACGGACAATG CTAAAACCAT AATAGTACAG CT
```

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        2390        2400        2410        2420        2430        2440        2450
TCGAAGCAAG CAACCACCAC TCTATTTTGT GCATCAGATC CTAAAGCATA TGATAGCAGA GCTACATAAT

        2460        2470        2480        2490        2500        2510        2520
GTTTGCGCA CACATCCCTG TGTACCCACA GACCCCAACC CACAGAGAGT AGTATTCGTA ANTGTGACAG

        2530        2540        2550        2560        2570        2580        2590
AAGATTTTAA GATGTGCAAA AATGACATGG TAGAACAGGT GCATCAGGAT ATAATCATTT TATGGGATCA

        2600        2610        2620        2630        2640        2650        2660
AAGCCTAAAG CCATGTGTGA AATTAACCCC ACTCTGTGTT AGTTTAAAGT GCACTGCTTT GAAGAGTGAT

        2670        2680        2690        2700        2710        2720        2730
AGTAATAGCA ATAGTACTAG CGGGAGCAATC ATAATGGAGA CAGGAGAGAT GAAAGAGTGC TTTTTGAGTA

        2740        2750        2760        2770        2780        2790        2800
TCAGCACAAC CATAAGAGGT AAGGTGGAGA AAGAATATGC ATTTTTTTAT AAACTTGGTA TGGTACCGGT

        2810        2820        2830        2840        2850        2860        2870
GGATAGTGGT ACTACCAGGT ATAGGTTGAC AAGTTGTAAC ACCTCAGTCA TTACACATGC CTGTCCAAAG

        2880        2890        2900        2910        2920        2930        2940
GTATCCTTTG AGCCAATTCC CATACATTAT TGTGCCCGGC CTGCTTTTGC GATTCTAAAA TGTAGTAGTA

        2950        2960        2970        2980        2990        3000        3010
AGTCGTTCAA TGGAACAGGA CCATGTACAA ATGTCAGCAC AGTTCAATGT ACACATGGAA TTAGCCCAGT

        3020        3030        3040        3050        3060        3070        3080
AGTATCAACT CAACTGCTGT TAAATGGCAG TCTAGCAGAA GAAGACGTAG TAATTAGATC TGTCAGCTTC

        3090        3100        3110
ACGGACAATG CTAAAACCAT AATAGTACAC CT
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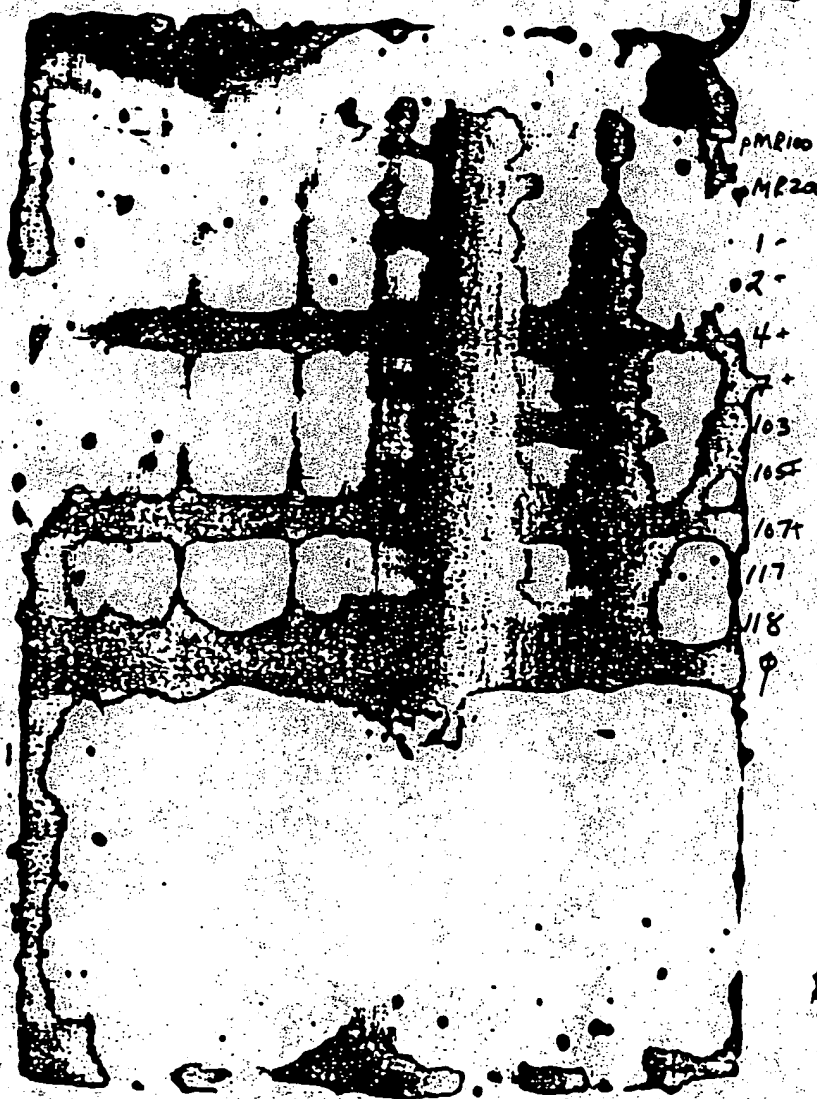
FIGURE 4

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pMR100
pMR200
1-
2-
4+
+
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105
107
117
118
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